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SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.			GRAHAM, CLEMENT B	
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MINNEAPOLIS, MN 55402			ART UNIT	PAPER NUMBER
			3628	
DATE MAILED: 07/19/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/911,839

Applicant(s)

KAY ET AL.

Examiner

Clement B. Graham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-16, remained pending in this application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2, 6, 8-9, 13-14, 16, are rejected under 35 U.S.C. 103(a) as being unpatentable over Beattie et al (Hereinafter Beattie U. S. Patent No 5,659, 742) in view of Lim U. S. Patent No 6, 526, 521.

As per claims 1, Beattie discloses a computer assisted method for detecting content holes, comprising:
accessing a content a content body (see column 24 lines 29-54 and fig: 7a-b),
organized into a plurality of concept nodes ("i. e, "terms in a query" see column 23 lines 38-65 and column 14 lines 29-65") wherein the content body includes a first concept node ("i. e, "first term in a query" see column 23 lines 38-65 and column 14 lines 29-65 and column 23 lines 9-67") and determining successful service interactions as a function of concept node, successful service interactions at the first concept node (see column 6 lines 55-65).

Beattie fails to explicitly teach percentage and below a predefined threshold, flagging a content hole.

However Lim discloses a method for providing access to data storage pathways that connect a cluster of nodes to a data storage system, the method comprising the steps of: receiving, from a cluster framework operating on the cluster of nodes, instructions for controlling multiple sets of the data storage pathways that connect the cluster of nodes to the data storage system; determining, in response to the instructions, which of the multiple sets of data storage pathways are available for transferring data between the cluster of nodes and the data storage system in accordance with predetermined access conditions; providing, to the cluster framework, operation states identifying which of the

multiple sets of storage pathways are available for transferring data between the cluster of nodes and the data storage system in accordance with the predetermined access conditions, the cluster of nodes accessing the data storage pathways based on the operation states; and issuing a warning signal to the cluster framework when a percentage of a particular set of data storage pathways available for transferring data between a particular node and the data storage system decreases from a value that is greater than or equal to a pre-established warning threshold to a value that is lower than the pre-established warning threshold. (see column 11 lines 30-43 and column 22 lines 21-46).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made that the teachings of Beattie to include percentage and below a predefined threshold, flagging a content hole taught by Lim in order to determine relevance scores.

As per claims 2, Beattie discloses a computer readable medium having instructions that when executed in a computer detects content holes by: accessing a content body organized into a plurality of concept nodes. ("i. e, "terms in a query" see column 23 lines 38-65 and column 14 lines 29-65") wherein the content body includes a first concept node ("i. e, "first term in a query" see column 23 lines 38-65 and column 14 lines 29-65 and column 23 lines 9-67") and determining successful service interactions as a function of concept node, successful service interactions at the first concept nodes(see column 6 lines 55-65).

Beattie fails to explicitly teach explicitly teach percentage and below a predefined threshold, flagging a content hole.

However Lim discloses a method for providing access to data storage pathways that connect a cluster of nodes to a data storage system, the method comprising the steps of: receiving, from a cluster framework operating on the cluster of nodes, instructions for controlling multiple sets of the data storage pathways that connect the cluster of nodes to the data storage system; determining, in response to the instructions, which of the multiple sets of data storage pathways are available for transferring data between the cluster of nodes and the data storage system in

accordance with predetermined access conditions; providing, to the cluster framework, operation states identifying which of the multiple sets of storage pathways are available for transferring data between the cluster of nodes and the data storage system in accordance with the predetermined access conditions, the cluster of nodes accessing the data storage pathways based on the operation states; and issuing a warning signal to the cluster framework when a percentage of a particular set of data storage pathways available for transferring data between a particular node and the data storage system decreases from a value that is greater than or equal to a pre-established warning threshold to a value that is lower than the pre-established warning threshold. (see column 11 lines 30-43 and column 22 lines 21-46).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made that the teachings of Beattie to include percentage and below a predefined threshold, flagging a content hole taught by Lim in order to determine relevance scores.

As per claims 6, 16, Beattie discloses a computed assisted method for detecting content holes, comprising:

(a) accessing (see column 24 lines 29-54 and Fig:7a-b) a content body organized into a plurality of accessing a content nodes ("i. e, "terms in query" see column 23 lines 38-65 and column 14 lines 29-65) wherein the content body includes a first concept node ("i. e, first term in a query" see column 23 lines 38-65 and column 14 lines 29-65 and column 23 lines 9-67") and (b) determining successful service interactions as a function of the concept nodes, and (c) determining documents as a function of the concept nodes (d) and (e) computing a content hole score for the first concept node as a function of at least one of (b), (c), and (d) (see column 6 lines 55-65).

Beattie fail to explicitly teach a percentage and below a predefined threshold, flagging a content hole.

However Lim discloses a method for providing access to data storage pathways that connect a cluster of nodes to a data storage system, the method comprising the steps of: receiving, from a cluster framework operating on the cluster of nodes, instructions for controlling multiple sets of the data storage pathways that connect the cluster of nodes

to the data storage system; determining, in response to the instructions, which of the multiple sets of data storage pathways are available for transferring data between the cluster of nodes and the data storage system in accordance with predetermined access conditions; providing, to the cluster framework, operation states identifying which of the multiple sets of storage pathways are available for transferring data between the cluster of nodes and the data storage system in accordance with the predetermined access conditions, the cluster of nodes accessing the data storage pathways based on the operation states; and issuing a warning signal to the cluster framework when a percentage of a particular set of data storage pathways available for transferring data between a particular node and the data storage system decreases from a value that is greater than or equal to a pre-established warning threshold to a value that is lower than the pre-established warning threshold. (see column 11 lines 30-43 and column 22 lines 21-46).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made that the teachings of Beattie to include percentage and below a predefined threshold, flagging a content hole taught by Lim in order to determine relevance scores.

As per claim 8, Beattie discloses in which each concept node represents a concept for the content body. ("i. e, "term in a query" see column 23 lines 38-65 and column 14 lines 29-65 and column 23 lines 9-67") .

As per claim 9, Beattie discloses in which the successful service interaction comprises a query from a user for which returned content matches that user's intent. (see column 6 lines 55-65 and column 23 lines 38-65 and column 14 lines 29-65 and column 23 lines 9-67") .

As per claim 13, Beattie discloses in which each concept node represents a concept for the content body. ("i. e, "term in a query" see column 23 lines 38-65 and column 14 lines 29-65 and column 23 lines 9-67") .

As per claim 14, Beattie discloses in which the successful service interaction comprises a query from a user for which returned content matches ("i. e, resultant

dataset") that user's intent. (see column 6 lines 55-65 and column 23 lines 38-65 and column 14 lines 29-65 and column 23 lines 9-67") .

4. Claims 3-5, 7, 10-12, 15, are rejected under 35 U.S.C. 103(a) as being unpatentable over Beattie et al (Hereinafter Beattie U. S. Patent No 6,643, 640) in view of Lim U. S. Patent No 6, 526, 521 in view of Arai (U.S. Patent No 6, 714, 920).

As per claim 3, Beattie discloses a computer assisted method of charging for services, comprising:

determining successful service interactions in a typical information retrieval system. (see column 6 lines 55-65) and determining of successful service interactions for services provided in the typical and defined first and second information retrieval system.(see column 23 lines 38-65 and column 14 lines 29-65 and column 23 lines 9-67").

Beattie fail to explicitly teach percentage and billing as a function of the difference between the percentage.

However Lim discloses a method for providing access to data storage pathways that connect a cluster of nodes to a data storage system, the method comprising the steps of: receiving, from a cluster framework operating on the cluster of nodes, instructions for controlling multiple sets of the data storage pathways that connect the cluster of nodes to the data storage system; determining, in response to the instructions, which of the multiple sets of data storage pathways are available for transferring data between the cluster of nodes and the data storage system in accordance with predetermined access conditions; providing, to the cluster framework, operation states identifying which of the multiple sets of storage pathways are available for transferring data between the cluster of nodes and the data storage system in accordance with the predetermined access conditions, the cluster of nodes accessing the data storage pathways based on the operation states; and issuing a warning signal to the cluster framework when a percentage of a particular set of data storage pathways available for transferring data between a particular node and the data storage system decreases from a value that is greater than or equal to a pre-established warning

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threshold to a value that is lower than the pre-established warning threshold. (see column 11 lines 30-43 and column 22 lines 21-46).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made that the teachings of Beattie to include percentage and below a predefined threshold, flagging a content hole taught by Lim in order to determine relevance scores.

Lim fail to explicitly teach billing as a function of the difference between the percentage.

However Arai discloses a sub-information outputting means for reading out and outputting the sub-information selected by the sub-information selecting means from the sub-information memorizing means; a main information outputting means for reading out and outputting the main information retrieved by the main information retrieving means from the main information memorizing means; and a billing means which carries out the billing of the main information outputted by the main information outputting process and reduces the amount of money to be billed when an output by the sub-information outputting process is executed with respect to the sub-information on the main information which is an object of the billing. (Note abstract and see column 2 lines 34-57 and column 21 lines 38-57).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Beattie and Lim to include teach billing as a function of the difference between the percentage taught by Arai in order to provide an accurate bill for services provided.

As per claim 4, Beattie discloses, the computer assisted method wherein determining a percentage of successful service interactions for services provided in the defined information retrieval system includes:

accessing a content body organized into a plurality of concept nodes ("i. e, "terms in a query" see column 23 lines 38-65 and column 14 lines 29-65") wherein the content body includes a first concept node ("i. e, "first term in a query" see column 23 lines 38-65 and column 14 lines 29-65 and column 23 lines 9-67") , determining a of successful service interactions as a function of each concept node and a typical information retrieval

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system and services provided in the defined information retrieval system. (see column 6 lines 55-65).

Beattie fail to explicitly teach billing as a function of the difference between the percentage.

However Lim discloses a method for providing access to data storage pathways that connect a cluster of nodes to a data storage system, the method comprising the steps of: receiving, from a cluster framework operating on the cluster of nodes, instructions for controlling multiple sets of the data storage pathways that connect the cluster of nodes to the data storage system; determining, in response to the instructions, which of the multiple sets of data storage pathways are available for transferring data between the cluster of nodes and the data storage system in accordance with predetermined access conditions; providing, to the cluster framework, operation states identifying which of the multiple sets of storage pathways are available for transferring data between the cluster of nodes and the data storage system in accordance with the predetermined access conditions, the cluster of nodes accessing the data storage pathways based on the operation states; and issuing a warning signal to the cluster framework when a percentage of a particular set of data storage pathways available for transferring data between a particular node and the data storage system decreases from a value that is greater than or equal to a pre-established warning threshold to a value that is lower than the pre-established warning threshold. (see column 11 lines 30-43 and column 22 lines 21-46).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made that the teachings of Beattie to include percentage and below a predefined threshold, flagging a content hole taught by Lim in order to determine relevance scores.

Lim fail to explicitly teach billing as a function of the difference.

However Arai discloses a sub-information outputting means for reading out and outputting the sub-information selected by the sub-information selecting means from the sub-information memorizing means; a main information outputting means for reading out and outputting the main information retrieved by the main information retrieving

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means from the main information memorizing means; and a billing means which carries out the billing of the main information outputted by the main information outputting process and reduces the amount of money to be billed when an output by the sub-information outputting process is executed with respect to the sub-information on the main information which is an object of the billing.(Note abstract and see column 2 lines 34-57 and column 21 lines 38-57).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Beattie Lim to include billing as a function of the difference between the percentage taught by Arai in order to provide an accurate bill for services provided.

As per claim 5, Beattie discloses, a computer readable medium having instructions, when executed in a computer, charges for services: accessing a content body organized (see column 24 lines 29-54 and fig: 7a-b) into a plurality of concept nodes. ("i. e, "sever nodes" see column 4 lines 40-65) wherein the content body includes a first concept node ("i. e, "terms in a query" see column 23 lines 38-65 and column 14 lines 29-65") determining successful service interactions in a first information retrieval system. and successful service interactions for services provided in the defined information retrieval system includes weighting successful interactions as a function of concept node (see column 6 lines 55-65).

Beattie fails to teach percentage and billing as a function of the difference between the percentage of successful service interactions in a typical information retrieval system and the percentage.

However Lim discloses a method for providing access to data storage pathways that connect a cluster of nodes to a data storage system, the method comprising the steps of: receiving, from a cluster framework operating on the cluster of nodes, instructions for controlling multiple sets of the data storage pathways that connect the cluster of nodes to the data storage system; determining, in response to the instructions, which of the multiple sets of data storage pathways are available for transferring data between the cluster of nodes and the data storage system in accordance with predetermined access conditions; providing, to the cluster framework,

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operation states identifying which of the multiple sets of storage pathways are available for transferring data between the cluster of nodes and the data storage system in accordance with the predetermined access conditions, the cluster of nodes accessing the data storage pathways based on the operation states; and issuing a warning signal to the cluster framework when a percentage of a particular set of data storage pathways available for transferring data between a particular node and the data storage system decreases from a value that is greater than or equal to a pre-established warning threshold to a value that is lower than the pre-established warning threshold. (see column 11 lines 30-43 and column 22 lines 21-46).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made that the teachings of Beattie to include percentage and below a predefined threshold, flagging a content hole taught by Lim in order to determine relevance scores.

Lim fail to explicitly teach billing as a function.

However Arai discloses a sub-information outputting means for reading out and outputting the sub-information selected by the sub-information selecting means from the sub-information memorizing means; a main information outputting means for reading out and outputting the main information retrieved by the main information retrieving means from the main information memorizing means; and a billing means which carries out the billing of the main information outputted by the main information outputting process and reduces the amount of money to be billed when an output by the sub-information outputting process is executed with respect to the sub-information on the main information which is an object of the billing. (Note abstract and see column 2 lines 34-57 and column 21 lines 38-57).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Beattie and Lim to include explicitly teach billing as a function taught by Arai in order to provide an accurate bill for services provided.

As per claim 7, Beattie discloses a computer assisted method of charging for services, comprising:

determining a number of successful service interactions an information retrieval system over a period of time. (see column 6 lines 55-65).

Beattie and Lim fail to explicitly teach billing as a function of the number of successful service interactions in a typical information retrieval system over a period of time.

However Arai discloses a sub-information outputting means for reading out and outputting the sub-information selected by the sub-information selecting means from the sub-information memorizing means; a main information outputting means for reading out and outputting the main information retrieved by the main information retrieving means from the main information memorizing means; and a billing means which carries out the billing of the main information outputted by the main information outputting process and reduces the amount of money to be billed when an output by the sub-information outputting process is executed with respect to the sub-information on the main information which is an object of the billing.(Note abstract and see column 2 lines 34-57 and column 21 lines 38-57).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Beattie and Lim to include billing as a function of the number of successful service interactions in a typical information retrieval system over a period of time taught by Arai in order to provide an accurate bill for services provided.

As per claim 10, Beattie discloses in which the successful service interaction comprises a query from a user for which returned content matches that user's intent. (see column 6 lines 55-65 and column 23 lines 38-65 and column 14 lines 29-65 and column 23 lines 9-67") .

As per claim 11, Beattie discloses 4, in which each concept node represents a concept for the content body. ("i. e, "term in a query" see column 23 lines 38-65 and column 14 lines 29-65 and column 23 lines 9-67") .

As per claim 12, Beattie discloses 4, in which the successful service interaction comprises a query from a user for which returned content matches that user's intent.

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(see column 6 lines 55-65 and column 23 lines 38-65 and column 14 lines 29-65 and column 23 lines 9-67") .

As per claim 15, Beattie discloses which the successful service interaction comprises a query from a user for which returned content matches that user's intent. (see column 6 lines 55-65 and column 23 lines 38-65 and column 14 lines 29-65 and column 23 lines 9-67") .

Conclusion

RESPONSE TO ARGUMENTS

5. Applicant's arguments files on 0/27/06 have been fully considered but they are moot in view of new grounds of rejections.

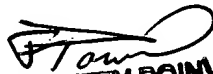
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clement B Graham whose telephone number is 703-305-1874. The examiner can normally be reached on 7am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung S. Souh can be reached on 703-308-0505. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-0040 for regular communications and 703-305-0040 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

CG

July 8, 2006


FRANTZY POINVIL
PRIMARY EXAMINER
AU 3628